F. J. SEYBOLD.
Bottle Stopper.

No. 201,953. Patented April 2, 1878.

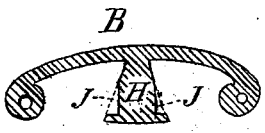

Fig. 6.

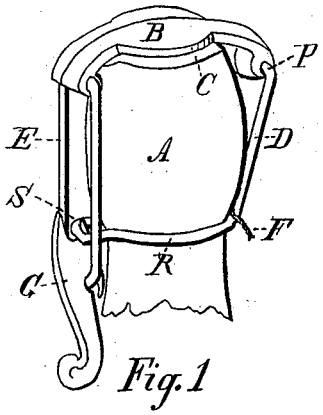

Fig. 1

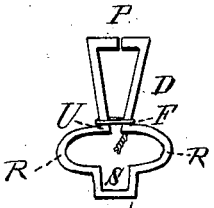

Fig. 4

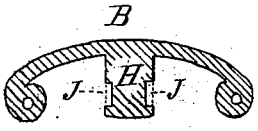

Fig. 7

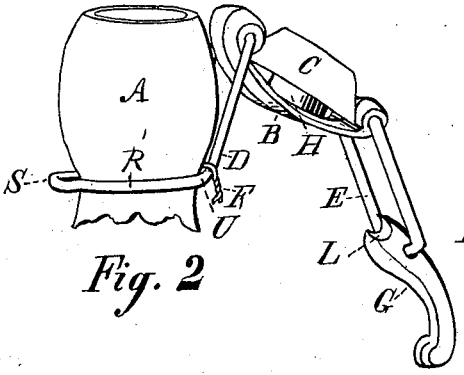

Fig. 2

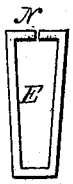

Fig. 5

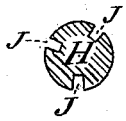

Fig. 8

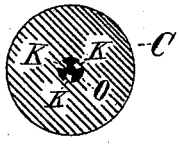

Fig. 9

Fig. 3

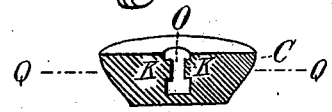

Fig. 10

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FREDERICK J. SEYBOLD, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **201,953**, dated April 2, 1878; application filed February 8, 1878.

To all whom it may concern:

Be it known that I, FREDERICK J. SEYBOLD, of the city of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Bottle-Stoppers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My invention pertains to that class of articles denominated in a general way "bottle-stoppers."

This invention consists of a neck-wire around the neck of a bottle, in a groove on the neck or beneath the shoulder formed by the head of the bottle, the two ends of the neck-wire being bent up toward the top and bent across, so that the two ends conjointly form a hinge or pivot, on which is secured and turns the top plate of the stopper, that rests on top of the bottle.

It also consists of a construction of the flexible pad and of the projection from the binding-plate, by which they are securely attached to each other.

From this top plate, that rests on top of the bottle, is a projection reaching downward into the bottle, and to this projection is attached a flexible pad, usually rubber, this pad being attached to the under projection on the plate by means of longitudinal slots cut into the under projection, into which fit corresponding projections in the orifice in the rubber pad, thereby securely holding the rubber to the downward projection from the top plate. The downward projection from the top plate is also made in the shape of a truncated cone, with the top of this truncated cone next to and joined to the top plate of the fastener. The elasticity of the flexible pad allows it to be stretched and sprung on this conical under projection, the shape of the projection tending to hold the rubber securely in its place when once sprung on. The slots in this under projection, into which fit corresponding projections in the orifice in the flexible pad, render the retention of the rubber doubly secure.

I am aware that bottle-stoppers have been previously made with this under projection of a conical shape, but with the cone inverted and with the base of the cone next to the top plate, the same being the reverse of what I have shown and claimed here. In these under projections, previous to my invention, the rubber has been held on them by means of a button-head or a groove around the under projection, or a screw-thread cut in the same, or some similar device, none of which I use in my invention, for neither of them affords a mutual lateral support to the protuberance and pad, because such necks or grooves extend entirely around them.

In a bottle stopper and fastener previously invented by me the neck-wire was somewhat similar to the one herein described; but this is an improvement on that.

In the previous invention the neck-wire extended about half-way around the bottle, one end being formed into a loop or bend for the locking-lever to turn on, and the other end turned up and formed into a hinge for the top plate to turn on, while in this present invention the neck-wire extends entirely, or almost entirely, around the bottle unbroken, the two ends being bent up and across, so as to form a complete hinge or pivot, on which the top plate turns, the two ends being sprung into a hole in the same.

The exact difference between this and my previous invention will perhaps be more clearly understood by reference to the accompanying drawings, in which the same parts are designated by the same letters in the different figures.

Figure 1 is a diagonal view of my stopper and fastener on a bottle-neck. In this figure R is a neck-wire, extending around, or nearly around, the bottle. D are the ends of the same, turned up toward the top of the bottle, where they are turned across, so as to form a hinge or pivot. (Shown more clearly at P, Fig. 4.) B is the top plate, hinged at P to the neck-wire R. E is an open link, with the two ends sprung into the top plate B opposite the points P. This link is seen more fully in Fig. 5. G is a lever suspended in this link, which passes through a hole or slot in the lever G. This lever G is forked at one end, so as to catch over the bend S of the neck-wire, which forms a fulcrum, on which the lever turns in carrying the lower end of the link down below the bend S on the neck-wire, and in back of the point of attachment of the same with the

lever G, where the link remains on the eccentric principle. A is a bottle-neck. F is a small binding-wire, that holds the neck-wire R securely on this bottle-neck. C is the top of the flexible pad, attached to the plate B by means of the projection H on plate B inserted into a cavity in the flexible pad C.

Fig. 2 is a side view of a bottle-neck containing my stopper and fastener, showing the same in an open position. In this figure, L is the fork on the end of the lever G, that catches over the fulcrum S of the neck-wire R. H is the under projection from the plate B that projects into the flexible pad C.

Fig. 3 shows the lever G. In this figure, M shows a slot in the lever, into which the link E, Fig. 5, is passed, and held there by bending the point T around the link E.

Fig. 4 is a top and front view of the neck-wire R off of a bottle. In this figure it will be seen that the two ends of the neck-wire at the points U are drawn closer together than at the points P. This construction prevents the binding-wire F from sliding upward toward the points P.

Fig. 5 shows the link E. Fig. 6 shows the top plate B of the bottle-stopper. In this figure, H shows the under projection from the plate B, showing that projection to be a truncated cone, with the apex joined on the plate B. J are slots or cavities cut into this under projection. In these slots or cavities J fit protuberances, which are formed on the inside of the orifice in the flexible pad.

Fig. 7 shows the plate B, the same as in Fig. 6, excepting that in Fig. 7 the under projection H is shown in the form of a cylinder instead of the form of a cone.

Fig. 8 is a top view of a horizontal section on the line J J, Figs. 6 and 7, showing distinctly the slots or orifices J cut into the under projection H.

Fig. 9 is a top view of a horizontal section on the line Q Q, Fig. 10, of the flexible pad C, showing the protuberances in the orifice of the flexible pad clearly at K, O being the cavity.

Fig. 10 is a face view of a vertical section through the flexible pad C. In this figure, O is the cavity in the flexible pad, into which is sprung the under projection H on the plate B. In this figure, (10,) K are the protuberances protruding into the orifice O, so that when the flexible pad C is sprung on the under projection H the protuberances K in the orifice O of the flexible pad will project into the orifices J in the under projection H of the plate B, Figs. 6 and 7.

The operation of this fastener is as follows: The different parts being constructed as described, and being properly put together, as shown in Fig. 2, the plate B is revolved on the hinge P across the top of the bottle, when the flexible pad C protrudes into the orifice in the neck of the bottle. The lever G is then carried down, and the fork L of the same placed on the fulcrum S, and the lever turned downward until the lower end of the same strikes against the side of the bottle, at which time the lower end of the link E will have fallen in behind the point of attachment of the lever G and fulcrum S, where it will remain securely locked on the eccentric principle.

What I claim as new and as of my invention, and desire to secure by Letters Patent, is—

1. The under projection H, constructed with the longitudinal slot or orifice J in one or more portions of its perimeter, as and for the the purpose set forth.

2. The flexible pad C, constructed with the orifice O and one or more longitudinal protuberances, K, in combination with the longitudinally-slotted under projection H, the slots and protuberances being in portions of the perimeter, as and for the purpose set forth.

3. The neck-wire R, constructed so that the two ends of the wire form a hinge or pivot, on which the top plate of the stopper or fastener turns, and constructed with a bend opposite the points U U on the neck-wire R, so that the bend forms a fulcrum, on which the locking-lever of the fastener may turn, as and for the purpose set forth.

4. The combination of a binding-plate, having eye-connections, with the link E, lever G, and neck-wire R, having bend S, bends U U, extensions D, and ends P, as and for the purpose set forth.

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Witnesses:
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ADOLPH RAMMELKAMP.